▲ BiPAC 7402NX Rear Panel

BiPAC 7402NX

802.11n 3G / ADSL2+ VPN Firewall Router with USB 2.0 port

Experience the ultimate in wireless speed and coverage with no more dead zones, while sharing your networking anywhere with secure and always-on connectivity!

The BiPAC 7402NX, a Dual-WAN 3G / ADSL2+ VPN firewall router integrated with the latest 802.11n Wireless Access Point and 4-port Gigabit switch is a chic and advanced networking product for SOHO and office users. It features a USB port for plugging a 3G / HSDPA modem which works as a backup WAN functioning as an automatic fail-over when an ADSL2+ connection breaks down. The BiPAC 7402NX connects over either an ADSL2+ or 3G network to deliver uninterrupted connectivity. The latest 802.11n standard enables even faster wireless speeds and better wireless coverage than 802.11g standards. Its three built-in antennas, which effectively search for wireless signals and automatically adjust to the optimal connection after obstacles have been detected, guarantee no more dead zones. Therefore, you can create your own mobile hotspot for Wi-Fi access wherever a 3G connection is available - in a meeting or at a trade fair. The router is also equipped with a built-in 4-port Gigabit Switch, enabling amazingly fast LAN transmissions for bandwidth-consuming applications such as video streaming and file sharing. Additionally, the integrated IPSec VPN function allows you to encrypt connections of up to 16 VPN tunnels to securely transmit data over the Internet.

Optimal Wireless Speeds and Coverage

With an integrated 802.11n Wireless Access Point, the router delivers up to 6 times the speeds and 3 times the wireless coverage of an 802.11b / g network device. It supports a data rate of up to 300 Mbps and is also compatible with 802.11b / g equipment. The Wireless Protected Access (WPA-PSK / WPA2-PSK) and Wired Equivalent Privacy (WEP) features enhance the level of transmission security and access control over Wireless LAN. The router also supports the Wi-Fi Protected Setup (WPS) standard, allowing users to establish a secure wireless network by simply pushing a button. If your network requires wider coverage, the built-in Wireless Distribution System (WDS) repeater function allows you to expand your wireless network without the need for any external wires or cables.

3G Mobility and Always-On Connection

With the BiPAC 7402NX you can connect a 3G / HSDPA USB modem to its built-in USB port, enabling you to use a 3G / HSDPA, UMTS, EDGE, GPRS, or GSM Internet connection, which makes downstream rates of up to 14.4 Mbps *3 possible. With the increasing popularity of the 3G standard, communication via the BiPAC 7402NX is becoming more convenient and widely available - allowing you to watch movies, download music on the road, or access e-mail no matter where you are. You can even share your Internet connection with others, no matter if you're in a meeting, or speeding across the country on a train. The auto fail-over feature ensures maximum connectivity and minimum interruption by quickly and smoothly connecting to a 3G network in the event that your ADSL line fails. The BiPAC 7402NX will then automatically reconnect to the ADSL connection when it's restored, reducing connection costs. These features are perfect for office situations where constant connection is paramount.

Express Internet Access at Gigabit Connectivity

The BiPAC 7402NX is compliant with worldwide ADSL standards, and supports download rates of up to 12 / 24 Mbps using ADSL2 / 2+, 8 Mbps using ADSL and an upload rate of up to 1 Mbps. The integrated Annex M standard supports ADSL2 / 2+ for higher upload speeds by doubling the upload data rate. With the built-in 4-port Gigabit Switch, the BiPAC 7402NX enables you to connect to multiple computers or wired-Ethernet devices easily and enjoy amazingly fast LAN transmissions for multimedia applications such as interactive gaming, IPTV video streaming and real-time audio.

Secure VPN Connections

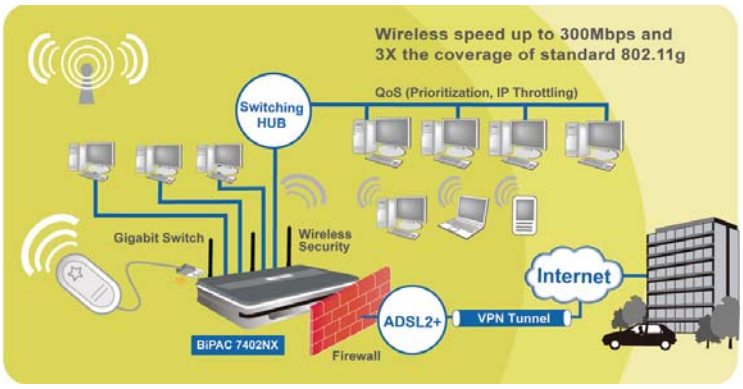
The BiPAC 7402NX supports embedded IPSec VPN (Virtual Private Network) protocols, allowing users to establish encrypted private connections of up to 16 simultaneous tunnels over the Internet. With a built-in DES / 3DES VPN accelerator, the router enhances IPSec VPN performance significantly - so you can access your corporate intranet and transmit sensitive data between branch offices and remote sites anytime; even when you are on the road, thus enhancing productivity.

- Dual-WAN approach – ADSL2+, Ethernet WAN or 3G for broadband connectivity
- High speed Internet access with ADSL2 / 2+; backward compatible with ADSL
- USB 2.0 port for plugging a 3G / HSDPA modem as backup (available from your service provider)
- Auto fail-over feature to ensure an always-on connection
- Integrated 4-port Gigabit Switch, one port can be configured as a WAN interface
- High-speed wireless connection up to a 300 Mbps data rate
- Expanded wireless coverage of up to 3 times the range of 802.11g products
- 802.11n Wireless AP with Wi-Fi Protected Setup (WPS) and WPA-PSK / WPA2-PSK support
- 16 IPSec VPN tunnels Support
- Secured VPN with powerful DES / 3DES / AES
- SOHO firewall security with DoS prevention and SPI
- Ease of use with Quick Installation Wizard and Auto-scan ADSL settings
- Quality of Service for traffic prioritization and bandwidth management
- Supports IPTV Applications *4

Ideal for

- **SOHO users**
- **Office users**
- **Event or meeting organizers**

Powering communications with Security



802.11n 3G / ADSL2+ (VPN) Firewall Router with USB 2.0 port

Model	Wireless 802.11n	Wi-Fi Protected Setup	IPsec VPN	USB port for 3G backup	4-port Gigabit Switch	Auto Fail-over
BiPAC 7402NX	V	V	V	V	V	V

Compatible 3G USB modems [*3]

Brand	Model
Huawei	E169, E172, E220, E270, E272
ZTE	MF622
NOVATEL	MC950D
BandRich	Bandluxe C100

This list is continuously updated at http://www.billion.com/compatible-3G.html

Features & Specifications

ADSL Compliance
- Compliant with ADSL Standard
  - Full-rate ANSI T1.413 Issue 2
  - G.dmt (ITU G.992.1)
  - G.lite (ITU G.992.2)
  - G.hs (ITU G.994.1)
  - ADSL over ISDN / U-R2
- Compliant with ADSL2 Standard
  - G.dmt.bis (ITU G.992.3)
  - ADSL2 Annex M (ITU G.992.3 Annex M) (BiPAC 7402NXA only)
- Compliant with ADSL2+ Standard
  - G.dmt.bis plus (ITU G.992.5)
  - ADSL2+ Annex M (ITU G.992.5 Annex M) (BiPAC 7402NXA only)

Network Protocols and Features
- NAT, static routing and RIP-1 / 2
- Universal Plug and Play (UPnP) Compliant
- Dynamic Domain Name System (DDNS)
- Virtual Server and DMZ
- SNTP, DNS relay, IGMP Proxy
- POP3 (email account checking)
- IGMP snooping for video service

Firewall
- Built-in NAT firewall
- Stateful Packet Inspection (SPI)
- DoS attack prevention including IP Spoofing, Land Attack, Smurf Attack, Ping of Death, TCP SYN Flooding, etc.
- Packet Filtering - port, source IP address, destination IP address, MAC address
- URL Content Filtering - string or domain name detection in URL string

Quality of Service Control
- DiffServ approach support
- Traffic prioritization and bandwidth management based-on IP protocol, port number and address

ATM and PPP Protocols
- ATM Adaptation Layer Type 5 (AAL5)
- Multiple Protocol over AAL5 (RFC 2684, formerly RFC 1483)
- Bridged or routed Ethernet encapsulation
- VC and LLC based multiplexing
- PPP over Ethernet (PPPoE)
- PPP over ATM (RFC 2364)
- Classical IP over ATM (RFC 1577)
- MAC Encapsulated Routing (RFC 1483 MER)
- OAM F4 / F5

IPTV Application [*4]
- IGMP Snooping
- Virtual LAN (VLAN)
- Quality of Service (QoS)

Wireless LAN
- Compliant with IEEE 802.11n, 802.11g and 802.11b standards
- 2.4 GHz - 2.484 GHz frequency range
- Up to 300 Mbps wireless operation rate
- WPS (Wi-Fi Protected Setup) for easy setup
- 64 / 128 bits WEP supported for encryption
- Wireless Security with WPA-PSK / WPA2-PSK support
- WDS repeater function support

Virtual Private Network (VPN)
- 16 IPSec VPN Tunnels
  8 L2TP VPN Tunnels (Dial-in: 4, Dial-out: 4)
  8 PPTP VPN Tunnels (Dial-in: 4, Dial-out: 4)
- Embedded IPSec, L2TP & PPTP client / server
- IKE key management
- DES, 3DES and AES encryption for IPSec
- Embedded powerful 3DES accelerator
- MPPE Encryption for PPTP
- L2TP over IPSec
- L2TP / PPTP / IPSec pass-through

Management
- Quick Installation Wizard and Auto-scan ADSL settings
- Web-based GUI for remote and local management
- Firmware upgrade and configuration data upload and download via web-based GUI
- Embedded Telnet server for remote and local management
- Available Syslog monitoring
- SNMP v3, MIB-I and MIB-II support
- Supports DHCP server / client / relay
- TR-069 [*1] supports remote management

Hardware Specifications

Physical Interface
- WLAN: 3 x 2dbi detachable antennas
- DSL: ADSL port
- EWAN: Ethernet port #1 can be configured to WAN port for connecting to ADSL/Cable/VDSL/Fiber modem device
- Ethernet: 4-port 10 / 100 / 1000M auto-crossover (MDI / MDI-X) switch
- USB 2.0 supports 3G / HSDPA modem backup
- Console: PS2
- Factory default reset button
- WPS push button
- Power jack
- Power switch

Physical Specifications
- Dimensions: 9.04" x 4.53" x 1.46"
  (229.5 mm x 155 mm x 37 mm)

Power Requirements
- Input: 15V DC, 1.6A
- Car Power Cable available separately [*5]

Operating Environment
- Operating temperature: 0 ~ 40℃
- Storage temperature: -20 ~ 70℃
- Humidity: 20 ~ 95% non-condensing

Models & Standards Supported

Product Models
- BiPAC 7402NX:
  802.11n 3G / ADSL2+ VPN Firewall Router

Standards
- BiPAC 7402NXA:
  Supports Annex A and Annex M
  (Annex A and Annex M: ADSL over POTS)
- BiPAC 7402NXU:
  Supports U-R2 and Annex B
  (Annex B and U-R2: ADSL over ISDN)

*Notes:
1. On request for Telco / ISP projects
2. The router may require firmware modification for certain ADSL2 / 2+ / Annex M DSLAMs.
3. The 3G / HSDPA data rate depends on your local service provider and your 3G / HSDPA modem.
4. IPTV application may require subscription to IPTV services from a Telco / ISP.
5. The Car Power Cable can be made available as an optional accessory upon request.
6. Specifications on this datasheet are subject to change without prior notice.

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